WHAT IS CLAIMED IS:

1. A low noise block down converter, comprising:

a plurality of local oscillators each including a dielectric resonator and having an oscillation frequency different from each other;

an electromagnetic coupling preventing member preventing electromagnetic coupling between one and another one of said dielectric resonators; and

a metal shielding box including one shielding chamber accommodating said plurality of local oscillators and said electromagnetic coupling preventing member.

2. The low noise block down converter according to claim 1, wherein said electromagnetic coupling preventing member includes a conductive bar having one end extending between any two of said dielectric resonators and receiving a reference potential.

3. The low noise block down converter according to claim 1, further comprising a substrate having a surface on which said plurality of local oscillators are mounted, wherein

said electromagnetic coupling preventing member includes a conductive pattern formed on the surface of said substrate between any two of said dielectric resonators and receiving a reference potential.

4. The low noise block down converter according to claim 1, wherein said electromagnetic coupling preventing member includes a metal plate provided between any two of said dielectric resonators and receiving a reference potential.